February 18, 2003

Justin Graf
Empro Manufacturing Company, Inc.
P.O. Box 26060
Indianapolis, Indiana 46226

Re: Registered Construction and Operation Status,
097-12682-00004

Dear Mr. Graf:

The application from Empro Manufacturing Company, Inc., received on September 5, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.1-2, it has been determined that the following welding operation, to be located at 10920 East 59th Street, Indianapolis, Indiana 46226, is classified as registered:

(a) Four (4) horizontal metal polishing belts, three (3) vertical metal polishing belts, and three (3) self enclosed sandblasters. The sandblasters have a capacity of 3,300 pounds per hour (lbs/hr) of aluminum oxide, and 2,000 pounds per hour (lbs/hr) of glass beads.

(b) Three (3) dry blasting units with a flow rate of 700 cubic feet per minute (cfm) equipped with one (1) baghouse.

(c) Twelve (12) soldering/welding stations with a maximum usage of 26,700 pounds per year (lbs/yr) of 50/50 tin/lead solder, 1,618 troy ounces per year (troy oz/yr) of silver solder, 41,042 pounds per year (lbs/yr) of propylene, and 556 gallons per year (gal/yr) of neutralizer

The following conditions shall be applicable:

(1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuos opacity monitor in a six (6) hour period.

(2) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations), the particulate emissions from the natural gas space heaters shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

The process weight for the heaters is 0.134 tons per hour, yielding a rate of emission of 1.07 pounds per hour (lbs/hr). Because the potential to emit particulate is less than 1.07 pounds per hour (lbs/hr), no emission controls are presently necessary.

This registration is the first air approval issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.1-2(f)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015
and
Office of Environmental Services
Air Quality Management Section, Compliance Data Group
2700 South Belmont Avenue
Indianapolis, Indiana 46221-2097

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original Signed by John B. Chavez
John B. Chavez, Administrator
Office of Environmental Services
City of Indianapolis

aco

cc: File, Marion County
Air Compliance, Matt Mosier
IDEM, Mindy Hahn
Permits, Angelique Oliger

Registration
Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3).

Company Name:	**Empro Manufacturing Co., Inc.**
Address:	**10920 East 59th Street**
City:	**Indianapolis, Indiana 46226**
Authorized individual:	**Justin Graf**
Phone #:	**(317) 823-4478**
Registration #:	**097-12682-00004**

I hereby certify that welding operation is still in operation and is in compliance with the requirements of Registration 097-12682-00004.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality
and
City of Indianapolis
Indianapolis Office of Environmental Services

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	Empro Manufacturing Company, Inc.
Source Location:	10920 East 59th Street, Indianapolis, Indiana 46226
County:	Marion
SIC Code:	3629
Operation Permit No.:	097-12682-00004
Permit Reviewer:	Angelique Oliger

The Office of Air Quality (OAQ) has reviewed an application from Empro Manufacturing Company, Inc., relating to the construction and operation of welding operations.

Unpermitted Emission Units and Pollution Control Equipment

The source consists of the following unpermitted emission units and pollution control devices:

(a) Four (4) horizontal metal polishing belts, three (3) vertical metal polishing belts, and three (3) self enclosed sandblasters. The sandblasters have a capacity of 3,300 pounds per hour (lbs/hr) of aluminum oxide, and 2,000 pounds per hour (lbs/hr) of glass beads.

(b) Three (3) dry blasting units with a flow rate of 700 cubic feet per minute (cfm) equipped with one (1) baghouse.

(c) Twelve (12) soldering/welding stations with a maximum usage of 26,700 pounds per year (lbs/yr) of 50/50 tin/lead solder, 1,618 troy ounces per year (troy oz/yr) of silver solder, 41,042 pounds per year (lbs/yr) of propylene, and 556 gallons per year (gal/yr) of neutralizer

Existing Approvals

There are no existing approvals issued to this source.

Enforcement Issue

(a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment.*

(b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on September 5, 2000.

Emission Calculations

See Appendix A of this document for detailed emissions calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	0.516
PM-10	0.516
SO_2	0.002
VOC	0.014
CO	0.221
NO_x	0.263
Lead	1.620

(a) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects data submitted to OES in September 2000.

Pollutant	Potential To Emit (tons/year)
PM	0.0
PM-10	0.5
SO_2	negligible
VOC	negligible
CO	negligible
NO_x	0.1
Lead	0.5

County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-10	attainment
SO_2	maintenance attainment
NO_2	attainment
Ozone	maintenance attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Marion County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.516
PM10	0.516
SO_2	0.002
VOC	0.014
CO	0.221
NO_x	0.263
Lead	1.620
Single HAP	negligible
Combination HAPs	negligible

(a) This new source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)
This new source is not subject to the Part 70 Permit requirements because the potential to emit

(PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Marion County and the potential to emit VOC and NO_X is less than ten (10) tons per year. The source is not one of the twenty-eight (28) listed sources and its potential to emit lead is less than five (5) tons per year, therefore, 326 IAC 2-6 does not apply.

The source will be required to annually submit a statement of the actual emissions of all federally regulated pollutants from the source, for the purpose of fee assessment.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Particulate Emission Limitations)

The particulate emissions from the natural gas space heaters shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

The process weight for the heaters is 0.134 tons per hour, yielding a rate of emission of 1.07 pounds per hour (lbs/hr). Because the potential to emit particulate is less than 1.07 pounds per hour (lbs/hr), no emission controls are presently necessary.

Conclusion

The construction and operation of this welding operation shall be subject to the conditions of the attached proposed Registration 097-12682-00004.

Emissions Calculation for Soldering/Welding

*2,650 pounds (lbs) of solder utilized annually
*Solder consists of 50% lead
*2,080 hours of operation annually
*PM10 emissions factor: 0.0359 lb PM10 / lb solder
*Baseline Case: 232,190 parts produced annually
*Increased Production Case: 557,256 parts produced annually

Potential to Emit Calculations

PM10:

2,650 lb solder / 2,080 hr * 0.0359 lb PM10 / 1 lb solder = 0.046 lb PM10 / hr

0.046 lb PM10 / hr * 8,760 hr / year * 1 ton / 2000 lb = 0.201 ton PM10 / year

increased production:

0.201 ton PM10 / year * 557,256 parts / 232,190 parts = **0.484 ton / year of PM10**

Lead:

2,650 lb solder / 2,080 hr * 0.5 lb Lead / 1 lb PM10 * 0.0359 lb PM10 / 1b solder
= 0.023 lb Lead / hr

0.023 lb Lead / hr * 8,760 hr / year * 1 ton / 2000 lb = 0.100 ton Lead / year

increased production:

0.100 ton Lead / year * 557,256 parts / 232,190 parts = **0.240 ton / year of Lead**

Emissions Calculation for Sanding/Sandblasting

*Total usage of metal containing lead annually is 191,944
*Total usage of lead annually is 7,265
*Total amount of waste collected annually is 7,200 pounds
*2,080 hours of operation annually
*Baseline Case: 232,190 parts produced annually
*Increased Production Case: 557,256 parts produced annually

Potential to Emit Calculations

Lead:

7,265 lbs lead / 191,944 lbs metal * 7,200 pounds metal / 2,080 hr = 0.131 lb / hr of lead

0.131 lb lead / hr * 8,760 hrs / yr * 1 ton / 2000 lbs = 0.574 ton / hr of lead

increased production

0.574 ton lead / yr * 557,256 parts / 232,190 parts = **1.377 ton / year of lead**

Appendix A: Emission Calculations
Natural Gas Combustion Only
Company Name: Empro Manufacturing Co., Inc.
Address City IN Zip: 10920 East 59th Street, Indianapolis, Indiana 46226
Registration: 097-12682-00004
Reviewer: Angelique Oliger
Date: 01/31/03

Heat Input Capacity	**(MMBtu/hr)**	**Natural Gas Potential Throughput (MMCF/yr)**
TOTAL	0.6	5.3

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	13.7	13.7	0.6	100.0	5.3	84.0
Potential to Emit in tons/yr	0.0360	0.0360	0.0016	0.2628	0.0139	0.2208

Methodology

MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors for NOx: uncontrolled = 100, Low Nox Burner = 17, Flue gas recirculation = 36
Emission Factors for CO: uncontrolled = 21, Low NOx Burner = 27, Flue gas recirculation = ND
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-03-006-03
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton